



Topographic Map Symbols

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Bathymetric Features, Boundaries, Buildings and Related Features, Coastal Features, Contours, Control Data and Monuments

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Control Data and Monuments (continued) Glaciers and Permanent Snowfields, Land Surveys, Marine Shorelines, Mines and Caves, Projections and Grids, Railroads and Related Features, Rivers, Lakes, and Canals

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Rivers, Lakes, and Canals (continued), Roads and Related Features, Submerged Areas and Bogs, Surface Features, Transmission Lines and Pipelines, Vegetation

What is a Topographic Map?

A map is a representation of the Earth, or part of it. The distinctive characteristic of a topographic map is that the shape of the Earth's surface is shown by contour lines. Contours are imaginary lines that join points of equal elevation on the surface of the land above or below a reference surface, such as mean sea level. Contours make it possible to measure the height of mountains, depths of the ocean bottom, and steepness of slopes.

A topographic map shows more than contours. The map includes symbols that represent such features as streets, buildings, streams, and vegetation. These symbols are constantly refined to better relate to the features they represent, improve the

Reading Topographic Maps

Interpreting the colored lines, areas, and other symbols is the first step in using topographic maps. Features are shown as points, lines, or areas, depending on their size and extent. For example, individual houses may be shown as small black squares. For larger buildings, the actual shapes are mapped. In densely built-up areas, most individual buildings are omitted and an area tint is shown. On some maps, post offices, churches, city halls, and other landmark buildings are shown within the tinted area.

The first features usually noticed on a topographic map are the area features, such as vegetation (green), water (blue), and densely built-up areas (gray or red).

Many features are shown by lines that may be straight, curved, solid, dashed, dotted, or in any combination. The colors of the lines usually indicate similar classes of information: topographic contours (brown); lakes, streams, irrigation ditches, and other hydrographic features (blue); land grids and important roads (red); and other roads and trails, railroads, boundaries, and other cultural features (black). At one time, purple was used as a revision color to show all feature changes. Currently,

appearance or readability of the map, or reduce production cost.

Consequently, within the same series, maps may have slightly different symbols for the same feature. Examples of symbols that have changed include built-up areas, roads, intermittent drainage, and some lettering styles. On one type of large-scale topographic map, called provisional, some symbols and lettering are handdrawn.

purple is not used in our revision program, but purple features are still present on many existing maps.

Various point symbols are used to depict features such as buildings, campgrounds, springs, water tanks, mines, survey control points, and wells. Names of places and features are shown in a color corresponding to the type of feature. Many features are identified by labels, such as "Substation" or "Golf Course."

Topographic contours are shown in brown by lines of different widths. Each contour is a line of equal elevation; therefore, contours never cross. They show the general shape of the terrain. To help the user determine elevations, index contours are wider. Elevation values are printed in several places along these lines. The narrower intermediate and supplementary contours found between the index contours help to show more details of the land surface shape. Contours that are very close together represent steep slopes. Widely spaced contours or an absence of contours means that the ground slope is relatively level. The elevation difference between adjacent contour lines, called the contour interval, is selected to best show the general shape of the terrain. A map of a relatively flat area may have a contour interval of 10 feet or less. Maps in mountainous areas may have contour intervals of 100 feet or more. The contour interval is printed in the margin of each U.S. Geological Survey (USGS) map.

Bathymetric contours are shown in blue or black, depending on their location. They show the shape and slope of the ocean bottom surface. The bathymetric contour interval may vary on each map and is explained in the map margin.

|| ↑ Top ||

BATHYMETRIC FEATURES

Area exposed at mean low tide; sounding datum line***



Channel***



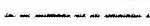
Sunken rock***

**BOUNDARIES**

National



State or territorial



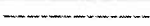
County or equivalent



Civil township or equivalent



Incorporated city or equivalent



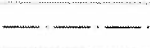
Federally administered park, reservation, or monument (external)



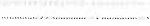
Federally administered park, reservation, or monument (internal)



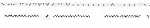
State forest, park, reservation, or monument and large county park



Forest Service administrative area*



Forest Service ranger district*



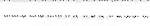
National Forest System land status, Forest Service lands*



National Forest System land status, non-Forest Service lands*



Small park (county or city)

**BUILDINGS AND RELATED FEATURES**

Building



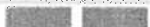
School; house of worship



Athletic field



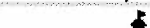
Built-up area



Forest headquarters*



Ranger district office*



Guard station or work center*



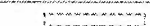
Racetrack or raceway



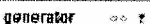
Airport, paved landing strip, runway, taxiway, or apron



Unpaved landing strip



Well (other than water), windmill or wind generator



Tanks



Covered reservoir



Gaging station



Located or landmark object (feature as labeled)



Boat ramp or boat access*



Roadside park or rest area



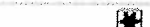
Picnic area



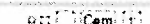
Campground



Winter recreation area*



Cemetery

**COASTAL FEATURES**

Foreshore flat



Coral or rock reef



Rock, bare or awash; dangerous to navigation



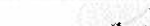
Group of rocks, bare or awash



Exposed wreck



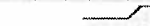
Depth curve; sounding



Breakwater, pier, jetty, or wharf



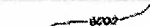
Seawall



Oil or gas well; platform

**CONTOURS****Topographic**

Index



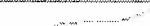
Approximate or indefinite



Intermediate



Approximate or indefinite



Supplementary



Depression



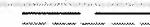
Cut



Fill



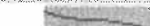
Continental divide

**Bathymetric**

Index***



Intermediate***



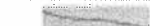
Index primary***



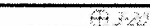
Primary***



Supplementary***

**CONTROL DATA AND MONUMENTS**

Principal point**



U.S. mineral or location monument



River mileage marker

**Boundary monument**

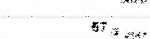
Third-order or better elevation, with tablet



Third-order or better elevation, recoverable mark, no tablet



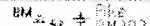
With number and elevation

**Horizontal control**

Third-order or better, permanent mark



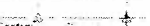
With third-order or better elevation



With checked spot elevation



Coincident with found section corner



Unmonumented**



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CONTROL DATA AND MONUMENTS — continued**Vertical control**

Third-order or better elevation, with tablet	BM	1,380
Third-order or better elevation, recoverable mark, no tablet		529
Bench mark coincident with found section corner	BM	5290
Spot elevation		5290

GLACIERS AND PERMANENT SNOWFIELDS

- Contours and limits
- Formlines
- Glacial advance
- Glacial retreat

LAND SURVEYS**Public land survey system**

Range or Township line	
Location approximate	
Location doubtful	
Protracted	
Protracted (AK 1:63,360-scale)	
Range or Township labels	RTE 12N
Section line	
Location approximate	
Location doubtful	
Protracted	
Protracted (AK 1:63,360-scale)	
Section numbers	1 - 36
Found section corner	
Found closing corner	
Witness corner	
Meander corner	
Weak corner*	

Other land surveys

Range or Township line	
Section line	
Land grant, mining claim, donation land claim, or tract	
Land grant, homestead, mineral, or other special survey monument	
Fence or field lines	

MARINE SHORELINES

Shoreline	
Apparent (edge of vegetation)***	
Indefinite or unsurveyed	

MINES AND CAVES

Quarry or open pit mine	
Gravel, sand, clay, or borrow pit	
Mine tunnel or cave entrance	
Mine shaft	
Prospect	
Tailings	
Mine dump	
Former disposal site or mine	

PROJECTION AND GRIDS

Neatline	39° 15' 90° 37' 30"
Graticule tick	55'
Graticule intersection	
Datum shift tick	
State plane coordinate systems	
Primary zone tick	640 000 FEET
Secondary zone tick	247 500 METERS
Tertiary zone tick	260 000 FEET
Quaternary zone tick	96 000 METERS
Quinary zone tick	320 000 FEET
Universal transverse mercator grid	
UTM grid (full grid)	173
UTM grid ticks*	469

RAILROADS AND RELATED FEATURES

Standard gauge railroad, single track	
Standard gauge railroad, multiple track	
Narrow gauge railroad, single track	
Narrow gauge railroad, multiple track	
Railroad siding	
Railroad in highway	
Railroad in road	
Railroad in light duty road*	
Railroad underpass; overpass	
Railroad bridge; drawbridge	
Railroad tunnel	
Railroad yard	
Railroad turntable; roundhouse	

RIVERS, LAKES, AND CANALS

Perennial stream	
Perennial river	
Intermittent stream	
Intermittent over	
Disappearing stream	
Falls, small	
Falls, large	
Rapids, small	
Rapids, large	
Masonry dam	
Dam with lock	
Dam carrying road	

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RIVERS, LAKES, AND CANALS – continued

Perennial lake/pond



Intermittent lake/pond



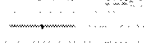
Dry lake/pond



Narrow wash



Wide wash



Canal, flume, or aqueduct with lock



Elevated aqueduct, flume, or conduit



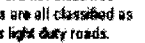
Aqueduct tunnel



Water well, geyser, fumarole, or mud pot

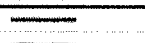


Spring or seep

**ROADS AND RELATED FEATURES**

Please note: Roads on Provisional-edition maps are not classified as primary, secondary, or light duty. These roads are all classified as improved roads and are symbolized the same as light duty roads.

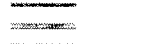
Primary highway



Secondary highway



Light duty road



Light duty road, paved*



Light duty road, gravel*



Light duty road, dirt*



Light duty road, unspecified*



Unimproved road



Unimproved road*



4WD road



4WD road*



Trail



Highway or road with median strip



Highway or road under construction



Highway or road underpass; overpass



Highway or road bridge; drawbridge



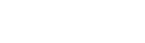
Highway or road tunnel



Road block, berm, or barrier*



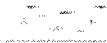
Gate on road*



Trailhead*

**SUBMERGED AREAS AND BOGS**

Marsh or swamp



Submerged marsh or swamp



Wooded marsh or swamp



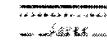
Submerged wooded marsh or swamp



Land subject to inundation

**SURFACE FEATURES**

Levee



Sand or mud



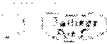
Disturbed surface



Gravel beach or glacial moraine



Tailings pond

**TRANSMISSION LINES AND PIPELINES**

Power transmission line; pole; tower



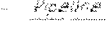
Telephone line



Aboveground pipeline



Underground pipeline

**VEGETATION**

Woodland



Shrubland



Orchard



Vineyard



Mangrove



|| ↑ Top ||

* USGS-USDA Forest Service Single-Edition Quadrangle maps only. In August 1993, the U.S. Geological Survey and the U.S. Department of Agriculture's Forest Service signed an Interagency Agreement to begin a single-edition joint mapping program. This agreement established the

** Provisional-Edition maps only. Provisional-edition maps were established to expedite completion of the remaining large-scale topographic quadrangles of the conterminous United States. They contain essentially the same level of information as the standard series maps. This series can

coordination for producing and maintaining single-edition primary series topographic maps for quadrangles containing National Forest System lands. The joint mapping program eliminates duplication of effort by the agencies and results in a more frequent revision cycle for quadrangles containing National Forests. Maps are revised on the basis of jointly developed standards and contain normal features mapped by the USGS, as well as additional features required for efficient management of National Forest System lands. Single-edition maps look slightly different but meet the content, accuracy, and quality criteria of other USGS products.

be easily recognized by the title "Provisional Edition" in the lower right-hand corner.

*** Topographic Bathymetric maps only.

Topographic Map Information

For more information about topographic maps produced by the USGS, please call:
1-888-ASK-USGS or visit us at ask.usgs.gov/

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